



# BAI

BIOSCIENCES ALLIANCE  
of Iowa

## WHO SUPPORTS BAI?



ASSOCIATION OF  
BUSINESS AND INDUSTRY



Professional Developers of Iowa  
Vision • Action • Growth



Agribusiness Association of Iowa



Iowa **Business** Council



THE greater DES MOINES  
partnership



IOWA  
CORN  
PROMOTION  
BOARD



IOWA  
BIOTECHNOLOGY  
ASSOCIATION



IOWA PORK  
PRODUCERS ASSOCIATION



IOWA SOYBEAN  
ASSOCIATION  
Expanding Opportunities. Delivering Results.



IOWA FARM BUREAU  
PEOPLE. PROGRESS. PRIDE.

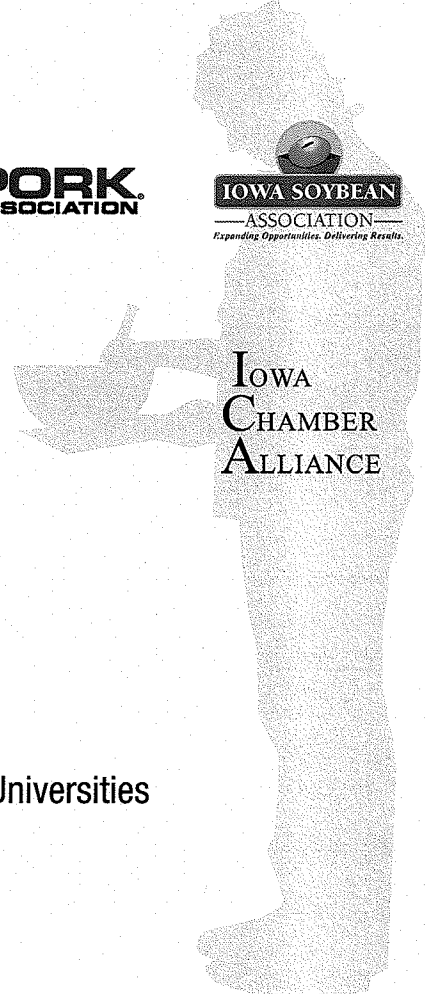
BIOWA

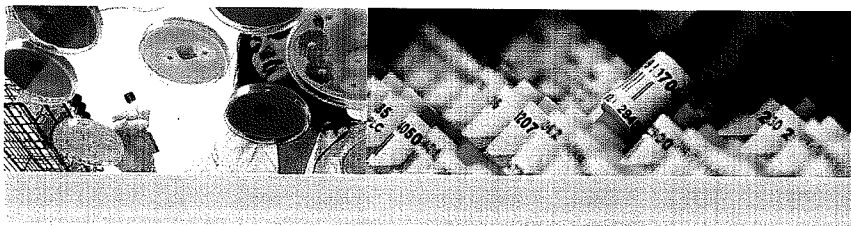
IOWA  
CHAMBER  
ALLIANCE

Iowa Seed Association

Iowa Institute for Cooperatives

Iowa Association of Independent Colleges and Universities





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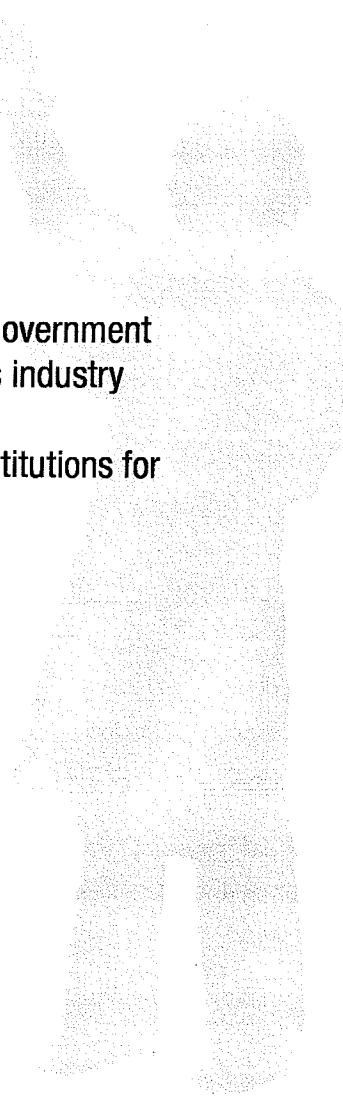
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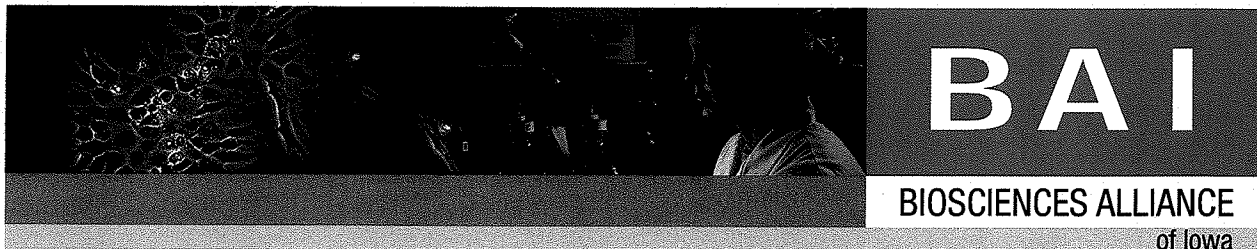
## WHAT IS BAI?

The Biosciences Alliance of Iowa (BAI), representing industry, education, agriculture, economic development, and government, was formed in 2004 to steer the development of Iowa's emerging bioscience industry.

## BAI OBJECTIVES:

- To coordinate private sector, state university and government approaches to the development of the biosciences industry
- To utilize the research capacities of the Regent institutions for job and wealth creation across all of Iowa
- To develop Iowa's bioscience talent pool





## IOWA'S BIOSCIENCES STRENGTHS... SEVEN PLATFORMS TO GROW ON

### **BioEconomy...Ethanol and Beyond**

Product potential: biofuels, biomaterials and biocomposites, chemicals, polymers, plastics, oils, starches, adhesives, enzymes, fibers

**Potential products with combined global market value of \$151.3 billion**

### **Advanced Food & Feed Products**

Product potential: botanical or herbal fortified beverages, soybean products, fiber- and vitamin- fortified products, probiotic (friendly bacteria) products, value-added Iowa processed products

**Potential products with combined global market value of \$161.8 billion**

### **Animal Systems**

Product potential: molecular farming – using livestock to produce medicines, nutraceuticals, and tissues for human use, increased meat or fiber yield, cloning and production technologies

**Potential products with combined global market value of \$14 billion**

### **Biomedical Imaging**

Product potential: products for image aided detection and diagnosis, software for quantitative image analysis, image data archiving and retrieval, image-based outcomes and safety assessment for new drugs and devices

**Potential products with combined global market value of \$20 billion**

### **Biosecurity/Biodefense**

Product potential: vaccines, drugs and therapies, environmental monitoring products

**Potential products with combined global market value of \$14.4 billion**

### **Drug Discovery, Development, Piloting and Production**

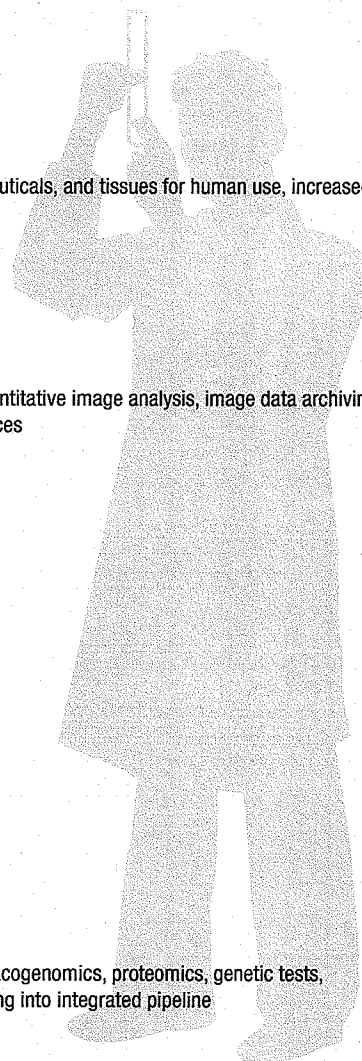
Product potential: drugs, biologics and gene therapy agents and vaccines

**Potential products with combined global market value of \$320.5 billion**

### **Post-Genomic Medicine**

Product potential: identifying new potential targets of intervention for disease, pharmacogenomics, proteomics, genetic tests, gene therapy, bioinformatics, new drugs, biologics, therapeutics, vaccines, etc., passing into integrated pipeline

**Potential products with combined global market value of \$255 billion**



## BAI SUCCESS STORIES

\$1.7 million has been appropriated to the following 5 projects:

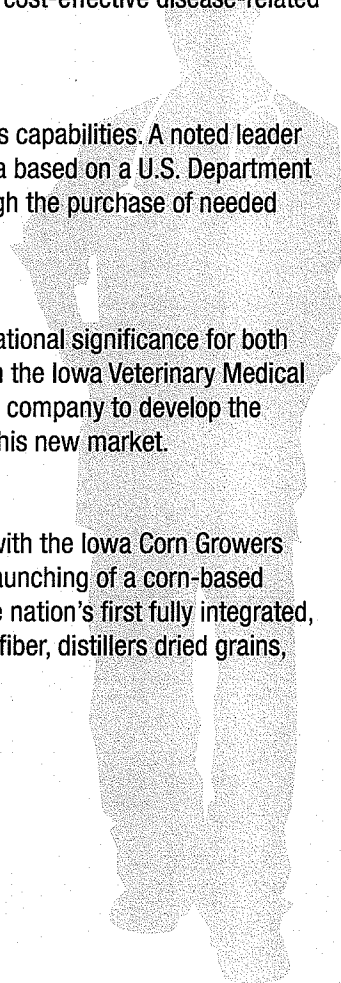
The creation of a Human Nutrition Wellness Center at Iowa State University (ISU) will allow existing Iowa companies, commodity groups and university researchers to collaborate on projects to evaluate foods and nutritional supplements on human health. All three Regent institutions will collaborate in the research conducted by the Center.

A new High-Throughput Animal Model Facility at the University of Iowa (UI) will provide both large and small animal researchers at UI and ISU the opportunity to create and characterize animal models of human diseases. This facility will provide companies with cost-effective disease-related animal research.

The third investment by the Alliance is in equipment for UI proteomics capabilities. A noted leader in the field, the UI has an opportunity to bring new companies to Iowa based on a U.S. Department of Defense contract requiring the research made possible only through the purchase of needed equipment and supporting software.

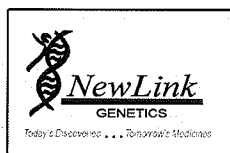
The tracking of animal movement across the country has taken on national significance for both economic and biosecurity reasons. The Alliance, with assistance from the Iowa Veterinary Medical Association and ISU, has funded research necessary for a small Iowa company to develop the software programs and interactive equipment necessary to capture this new market.

The final project that has been approved for funding, in conjunction with the Iowa Corn Growers Association and Genencor International, is a feasibility study on the launching of a corn-based biorefinery in Iowa. The objective of this project is to build in Iowa the nation's first fully integrated, corn-based biorefinery. Such a biorefinery will turn corn starch, corn fiber, distillers dried grains, and corn stover into ethanol and other biobased products.



## AT WORK IN IOWA

Companies who have founded or expanded their bioscience operations in Iowa include some familiar international names:



Ajinomoto Heartland, LLC

Archer Daniels Midland

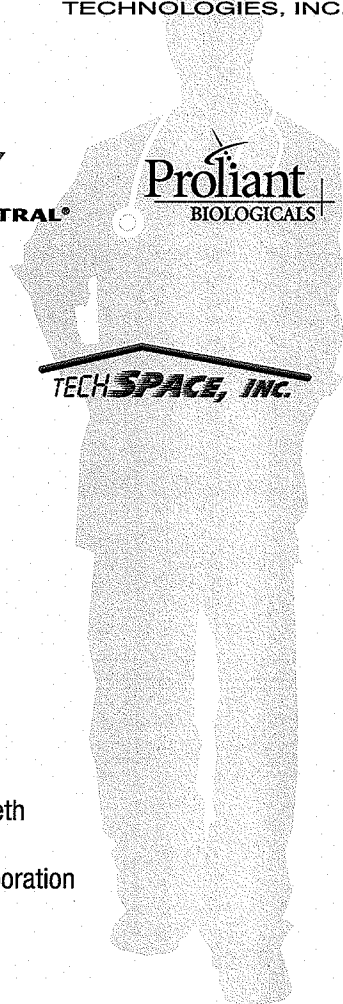
Boehringer Ingelheim Vetmedica, Inc.

Diosynth

Fort Dodge Animal Health, a division of Wyeth

Penford Products Co., a division of Penford Corporation

Wacker Chemical Corporation

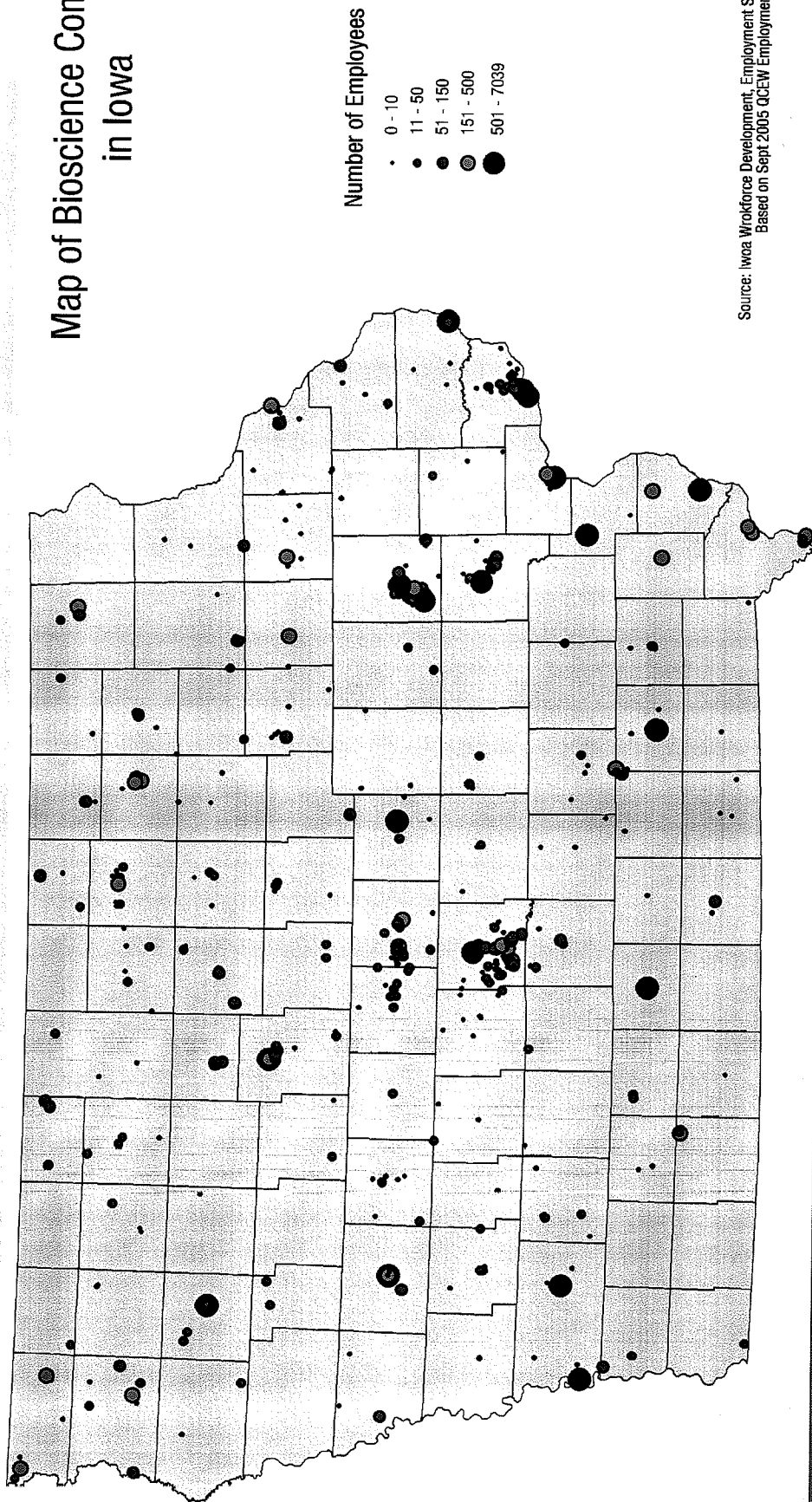




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## Map of Bioscience Companies in Iowa



Source: Iowa Workforce Development, Employment Statistics Bureau  
Based on Sept 2005 QCEW Employment